



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,208	03/25/2004	William L. Stewart II	TA-00658	6565

7590 12/30/2004
BRACEWELL & PATTERSON, L.L.P.
P.O. BOX 61389
HOUSTON, TX 77208-1389

EXAMINER

CONSILVIO, MARK J

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/809,208	Applicant(s) STEWART, WILLIAM L.	
	Examiner Mark Consilvio	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/25/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 3/25/2004 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

This application lacks formal drawings. The informal drawings filed in this application are acceptable for examination purposes only. When the application is allowed, applicant will be required to submit new formal drawings.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 13 and L1-L8. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 16 is objected to because of the following informalities:

Claim 16 recites the limitation, "the optical instrument." However, there is no proper antecedent basis for this claim limitation. The examiner is interpreting this to refer to the optical instrument from claim 1. Appropriate correction is required.

Claims 21-23 are objected to because of the following informalities:

Claims 21-23 recite the limitation, "the attachment of claim 1." However, there is no proper antecedent basis for this claim limitation in claim 1. The examiner is interpreting this to refer to the attachment from claim 13. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-5, 7-9, 11-13, 15-17, 19-21, 23-25, 27, 28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akin (US Patent No. 3,672,782) in view of von Stavenhagen (US Patent No. 3,192,632).

With respect to claims 1 and 13, Akin discloses an optical device comprising a tube (12) having an axis (65), a proximal end (closest to the viewer), a distal end (further from the viewer), and an inner surface (see Fig. 1). Also Akin discloses an optical instrument (13)

Art Unit: 2872

mounted inside the tube (12) and an optical flat (160) mounted inside the tube (12) between the optical instrument (13) and the distal end of the tube (see Fig. 1). Additionally, Akin discloses the optical flat (160) having a light-absorbing element (161) mounted thereto for reducing light emitted from the tube (see Fig. 14 and col. 7, lines 27-44). Further, the examiner notes that Akin refers to the light-absorbing element as, "a reflection-reducing coating," preferably made of magnesium fluoride, a well-known light-absorbing material.

Akin is silent to or does not expressly disclose a light-absorbing treatment on the inner surface of the tube. However, coating the inner surface of optical tubes is well known in the art. Evidence of the use of light-absorbing treatments can be found in von Stavenhagen who discloses a light-absorbing treatment on at least a portion of the inner surface of a tube (see col. 4, lines 5-9). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Akin and von Stavenhagen and apply a light-absorbing coating of von Stavenhagen to the invention of Akin. One of ordinary skill in the art would have been motivated to do this to reduce reflections of light for better contrast or for avoiding detection.

Further, with respect to claim 24, while Akin does not expressly disclose a method of using the optical device, the steps of providing, placing, passing, and absorbing are very broad. Therefore, the method of improving a stealth capability of an optical device is obvious in light of the structure stated supra concerning the limitations from claims 1 and 13.

With respect to claims 3 and 15, Akin discloses the optical flat (160) is mounted at an inclined angle relative to the tube (12) (see Fig. 1).

With respect to claims 4, 16, and 28, Akin discloses the optical flat is elliptical and clearly shows that all light that reaches the optical instrument from the distal end of the tube passes through the optical flat (see Figs. 1 and 14 and col. 7, lines 30-50).

With respect to claims 5, 17 and 27, Akin discloses the light-absorbing element is oval and opaque (see Fig. 14 and col. 7, lines 30-44). The additional limitations of claim 27 are also disclosed as stated supra concerning claims 3 and 15.

With respect to claims 7, 19, and 30, though Akin does not expressly disclose that any light that enters the tube from the distal end that is reflected by the optical flat is absorbed by the light-absorbing treatment on the inner surface of the tube, the combined teachings of Akin and von Stavenhagen provide all the necessary structure capable of performing all the limitations detailed in claims 7, 19, and 30. The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Therefore, if the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With respect to claims 8, 20, and 31, though Akin does disclose the optical flat is transparent, Akin does not expressly disclose the optical flat has parallel surfaces or has a smoothness that varies no more than approximately one-fourth of a wavelength of the light passing therethrough. However, it is well known that a smoother surface provides greater reflectivity. Likewise, it is known and commonly desired for optical flats to have the parallel surfaces. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Akin and von Stavenhagen to provide

Art Unit: 2872

smooth parallel surfaces for the optical flat. One of ordinary skill in the art would have been motivated to do this to provide surfaces that with high reflectivity to send reflected light directly to the light absorbing coating while the allowing transmitted light to remain undistorted.

With respect to claims 9, 21, and 25, though Akin does not expressly disclose that any light entering the optical instrument from the proximal end of the tube and light that is reflected from surfaces within the optical instrument emanate from virtual focal points within the optical instrument or that said any light is absorbed by the light-absorbing element. However, the combined teachings of Akin and von Stavenhagen provide all the necessary structure capable of performing all the limitations detailed in claim 9, 21 and 25. The claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. Therefore, if the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

With respect to claims 11, 23 and 32, Akin clearly shows the tube (12) is unobstructed from the optical flat (160) forward to beyond the distal end of the tube (see Fig. 1). Here, the term, "unobstructed," is read broadly to mean that no object is blocking the light from the distal end.

With respect to claim 12, though Akin does show the optical instrument is mounted adjacent to the proximal end of the tube, Akin does not expressly disclose the optical instrument magnifies a distant object for observation. However, magnification of such optical devices is conventional and well known in the art as evidenced by Akin (see col. 1, lines 54-58). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art

Art Unit: 2872

to combine the teachings of Akin and von Stavenhagen and add a magnification system to the combined invention of von Stavenhagen and Akin. One of ordinary skill in the art would have been motivated to do this more easily target a distant object.

Claims 2, 14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akin (US Patent No. 3,672,782) in view of von Stavenhagen (US Patent No. 3,192,632) and in further view of Karki (US Patent No. 4,150,191).

As stated supra, the combine inventions of Akin and von Stavenhagen teach all the limitations of claims 1, 13 and 24. With respect to claims 2, 14 and 26, though neither Akin nor von Stavenhagen expressly disclose the light-absorbing treatment and the light-absorbing element absorb visible, UV, IR light, and other forms of electromagnetic radiation, Karki teaches that treatments for absorbing various forms of electromagnetic radiation are known. Evidence of the existence and use of such materials inside optical devices can be found in Karki (see col. 1, lines 17-41). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Karki, Akin, and von Stavenhagen and apply a light-absorbing coating disclosed in Karki to the combined invention of Akin and von Stavenhagen. One of ordinary skill in the art would have been motivated to do this to prevent the user from being observed by various optical detection systems.

Claims 6, 18, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akin (US Patent No. 3,672,782) in view of von Stavenhagen (US Patent No. 3,192,632) and in further view of Ross (US Patent No. 3,902,251).

Art Unit: 2872

As stated supra, the combine inventions of Akin and von Stavenhagen teach all the limitations of claims 1, 13 and 24. With respect to claims 6, 18 and 29, though Akin does disclose the light-absorbing element is mounted on a proximal surface of the optical flat, does not expressly disclose that the element is slightly off-center with respect to the optical flat. However, Ross teaches that it is well known that an optical instrument, such as the erector lenses, may be off-center. Additionally, Ross teaches that further elements may be moved off-center in order to compensate. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Ross, Akin, and von Stavenhagen and have the light-absorbing element slightly off-center to compensate for off-center light from the proximal end of the device.

Claims 10 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akin (US Patent No. 3,672,782) in view of von Stavenhagen (US Patent No. 3,192,632) and in further view of Morgan (US Patent No. 6,488,381).

As stated supra, the combine inventions of Akin and von Stavenhagen teach all the limitations of claims 1 and 13. With respect to claims 10 and 22, Akin and von Stavenhagen do not expressly disclose an axial distance from the distal end of the tube to a nearest portion of the optical flat is greater than a diameter of the tube. However, Morgan discloses an invention to increase the distance to the distal end of the tube. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teachings of Morgan, Akin, and von Stavenhagen and apply extender of Morgan to the combined invention of Akin and von Stavenhagen. One of ordinary skill in the art would have been motivated to do for better

Art Unit: 2872

collimation of incident light and further removal of reflected light producing a clearer field of vision (see Fig. 4 and col. 2, lines 22-33).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Consilvio whose telephone number is (571) 272-2453. The examiner can normally be reached on Monday thru Friday, 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Consilvio
USPTO Patent Examiner
Jefferson, 3C21 AU-2872
(571) 272-2453


DREW A. DUNN
SUPERVISORY PATENT EXAMINER